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ABSTRACT

Videodiscs have much to offer in developing the school curriculum, but teachers must use definite criteria in planning teaching-learning situations that will enable students to achieve on an individual basis. Thus, students should find meaning, interest, purpose, provision for individual differences, and a balance among objectives in their learning activities. Diverse philosophies of education may be utilized in videodisc technology; i.e., realism, experimentalism, idealism, and existentialism may be stressed as philosophies of education to provide direction and guidance in teaching-learning situations. The psychology of learning also needs to be utilized to assist each student to achieve as much as possible. Thus a behavioristic approach and considerable student input in ongoing lessons and units should be used to provide logical and psychological curricula, as well as inductive procedures to lead students to make relevant generalizations, and deductive teaching to assist them in moving from a generalization to its specifics. (RP)

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Laser Videodiscs and the Curriculum

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Laser Videodiscs and the Curriculum

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Laser Videodiscs and the Curriculum

Teachers and administrators continuously need to evaluate the quality of learning opportunities for students. Many types of activities are available to assist learners to attain objectives. Traditionally, textbooks, library books, workbooks, worksheets, as well as films, filmstrips, slides, pictures, and tapes have been utilized to provide learning experiences for students. Along with these experiences, activity centered teachers have also stressed construction work, dramatic experiences, mural development, diorama making and puppetry in the curriculum.

Learning opportunities should be selected to assist pupils to attain chosen ends. Thus, a variety of kinds of materials have been used to assist students of different achievement levels to achieve objectives. Each student needs to progress as much as possible. A relatively recent development has occurred in technology development to assist learners to progress toward attaining objectives. Laser videodiscs have been an end result and promise to assist each student

to achieve as much as possible in ongoing lessons and units.

Laser Videodisc Technology

Each item of technology to improve instruction must possess and meet definite criteria. One criterion emphasizes that content learned be meaningful for students. Laser videodiscs can emphasize this standard. Students watching content from a videodisc can understand subject matter presented therein. Videodiscs can present the semi-concrete clearly and accurately. Meaningful explanations add to the clarity of these visuals. Students may ask questions about a visual or series of visuals on the videodisc to further clarify thinking and add understanding to the ongoing presentation.

Audio-visual aids as means to achieve objectives must also capture the interests of students. Dull and unimpressive teaching materials fail to stimulate student achievement. Rather, learning opportunities need to be of interest so that learners put forth effort in goal attainment. The material for teaching

and the student become one. Opposite would be where the student is completely separated from the media of instruction. Videodiscs have the capability to capture students interest in learning.

A third criteria applied to teaching emphasizes that learners perceive purpose in ongoing lessons and units. Readiness experiences, prior to a videodisc presentation, can aid students to perceive purpose in the learning opportunity. An inductive approach may be helpful here. With sequential questions, the teacher assists students inductively to perceive purpose in the videodisc presentation. To alter approaches, deduction can be used. The teacher then, clearly and concisely, tells students about the significance of watching content in the videodisc presentation. Learners may be guided to perceive values inherent in videodisc content.

Individual differences need to be provided for in achievement. Learners differ from each other in rates of achievement, learning styles, and background information possessed. Since videodiscs represent the

iconic or semi-concrete phase of learning, many students can benefit from its contents. Visual presentations tend to provide for diverse levels of student progress. Adapting the media use to the learning style of the student is important. Videodiscs are a means of learning and attaining objectives. This media can provide for a variety of learning styles and personalities. Visuals in the videodisc provide opportunities for many to learn from this procedure of instruction. Adequate background information provided by the teacher, prior to the videodisc presentation, can do much to assist each learner to attain optimally.

Fifthly, media should provide for the comprehensive development of the student. The understandings (facts, concepts, and generalizations), skills, (critical and creative thinking, as well as problem solving), and attitudes (positive feelings, values, and beliefs) as objectives need attainment by students. One category of objectives is not adequate. From videodiscs, students need assistance to acquire vital subject matter as understanding objectives. For

skills objectives, the teacher needs to stimulate learners to attain higher levels of cognition. To achieve more optimally in understandings and skills, the learner needs to possess desired attitudes. Frequently, understandings and skills objectives are not achieved by students due to negative feelings possessed by students. If learners appreciate and feel successful when learning opportunities accrue from videodisc presentations, quality attitudes should be developed increasingly so. Certainly, videodisc technology should guide students to achieve well in understandings, skills, and attitudinal goals.

Five criteria when followed by the classroom teacher will assist students to achieve more optimally through the utilization of videodiscs in the curriculum. These were to assist students

1. to attach meaning to ongoing presentations.
2. to develop interest in content presented.
3. to perceive purpose for learning.
4. to achieve well on an individual basis.
5. to attain optimally in a comprehensive manner.

Advantages in Using Videodiscs

Videodisc technology has much to recommend itself. Videodiscs are much less costly, as compared to the purchase of films. A disc costs, approximately, fifteen per cent of that of a film. At the same time, videodiscs will last for as long as it is used in the school setting. This means that, as a whole, nothing can go wrong with the videodisc. Films eventually tear and wear out. Projectors for film use have gears, pulleys, and belts. They require frequent repair work and expense. Videodisc players do not have moveable parts, a beam of light from the player touches a videodisc for its operation. The latter needs no rewinding. The cost of a monitor and the videodisc player is approximately equal to that of the film projector.

Many excellent pictures for students appear on a side of the videodisc. Thus, from among an approximate 54,000 pictures on one side of a videodisc, the teacher can enter the number for any one picture to have it retrieved and appear on the monitor in just a few

seconds. These pictures are like slides that can be shown and discussed with students in an ongoing lesson or unit. Semi-concrete experiences are then in the offing to provide meaningful as well as interesting content to students. Appropriate time can be given for discussing specifics in each slide.

Additional features of videodisc technology include the following types/kinds of subject matter contained on a disc:

1. film clips on historically significant news items.
2. motion pictures of content related to an ongoing lesson or unit.
3. still pictures directly related to subject matter taught.
4. videodisc library capabilities to replace many books which ordinarily would be purchased. A videodisc costs approximately the same as a library book.
5. videodiscs having content dealing with each academic discipline or subject matter taught.

6. computerized instruction being combined with videodisc technology. Computer assisted videodisc instruction (CAVI), covering all academic disciplines and subject matter areas will become increasingly important in the curriculum.

Videodisc technology can be utilized with diverse philosophies of education. Realism, as one philosophy of education, advocated that one can know the real world as it truly is/exists. One can then know the specifics contained in the real world. Measurably stated objectives become vital. Subject matter from videodiscs used as learning activities may assist students to achieve the precise ends. The teacher measures after instruction to notice if students have or have not attained the specific ends. Sequential, measurable objectives need to be in the offing to guide students in being successful in goal attainment.

A second philosophy of education, namely experimentalism, can also be effectively utilized with videodisc technology. To emphasize experimentalism, learners need to be stimulated to identify life-like

problems. Videodiscs, along with other materials, may be utilized by learners to gather data (information) in answer to the problem. The answer, a hypothesis, is tentative and not final or absolute. The hypothesis is subject to testing. Subject matter in one or more videodiscs may be utilized to test the hypothesis. The result may indicate a necessity to modify or change the hypothesis. It might also be that the hypothesis remains as originally stated.

Idealism, as a third philosophy of education, places major emphasis upon an idea centered curriculum. The teacher when making assignments in any curriculum area needs to take videodiscs in careful consideration as learning opportunities to have students acquire subject matter. Generally, reputable textbooks, workbooks, worksheets, and other reference materials involving reading as learning opportunities, are strongly advocated in an idea centered curriculum by idealists. Visuals in videodiscs can assist students to attain vital facts, concepts, and generalizations in a subject centered curriculum.

Existentialism as a philosophy of education stresses decision-making by students. Videodisc technology may be selected by students, from among other media, for learning. There needs to be ample kinds of learning opportunities from which to select. The student may then omit that which does not meet personal needs, interests, and purposes. Optimal achievement by the student is important in existentialism, as it is with all philosophies of education. To be able to choose and to make choices are significant in existentialism. Videodiscs can present content to the learner which may truly capture his/her interests for learning. What is needed in subject matter can be supplied to the student. Reasons or purposes for attainment may also be developed within the learner.

Videodisc technology might then be utilized within the framework of realism, experimentalism, idealism, and existentialism, as philosophies of education to provide direction and guidance in teaching-learning situations.

Videodiscs and the Psychology of Learning

Behaviorism, as a psychology of learning, emphasizes the utilization of behaviorally stated objectives. These precise ends state in advance what students are to learn prior to instruction. Observable results are in evidence if students have or have not been successful in goal attainment, as a result of instruction. A logical curriculum is in evidence when the teacher arranges the sequence of objectives for students to achieve. With rational thought, analogy, and logical processes, the teacher chooses the best order of sequential behaviorally stated objectives for students to achieve on an individual basis. The objectives, arranged in ascending order of complexity, guide each learner to achieve as much as possible. Objectives for the use of videodiscs can be arranged in a logical manner. These ends must be ordered by the teacher in behaviorism, as a psychology of learning, which permit students to achieve at a rate which truly provides for individual differences.

To emphasize a psychological curriculum, the videodisc presentations need to emphasize considerable learner input in ongoing lessons and units. Through teacher--student planning, decisions can be made on visuals needed to solve vital problems identified by the latter. Content from the videodiscs may then be utilized to gather data directly related to the problem. Cooperative decision-making between the teacher and the student should be used to determine videodisc data as well as other kinds of media needed in the data gathering process. Hypothesis may be developed and further study stressed to modify each hypothesis, if needed.

Inductive and deductive teaching may also be emphasized in the videodisc arena. To stress inductive teaching, the teacher may ask sequential questions pertaining to a set of slides within a videodisc. These questions should lead students to achieve relevant generalizations. From specifics to a generalization in inquiry methods emphasizes inductive methods of instruction.

Deduction can also be used effectively by the teacher in utilizing videodiscs technology. Clear concise generalizations explained by the teacher to students can be very meaningful. Specifics are emphasized as the teacher starts with a generalization and moves to the inherent parts therein. From the generalization to the specific is common in the concept of deductive teaching.

In many teaching-learning situations, inductive and deductive methods of instruction will be utilized. The teacher needs to utilize methods of instruction with videodiscs that assist each student to achieve as much as possible.

In the psychology of learning to guide each learner to achieve optimally, the teacher should emphasize

1. a logical curriculum.
2. a psychological curriculum.
3. inductive procedures.
4. deductive teaching.

In Conclusion

Videodiscs have much to offer in developing the school curriculum. Definite criteria using videodiscs must be emphasized in teaching-learning situations. Thus, students should experience meaning, interest, purpose, provision for individual differences, and balance among objectives.

Diverse philosophies of education may be utilized in videodisc technology. Realism, experimentalism, idealism, and existentialism may be stressed as philosophies of education in using videodiscs in ongoing lessons and units.

The psychology of learning needs to be utilized to assist each student to achieve optimally. Logical and psychological curricula, as well as inductive and deductive teaching should be utilized with videodiscs to assist each learner to attain optimally.